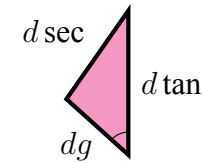
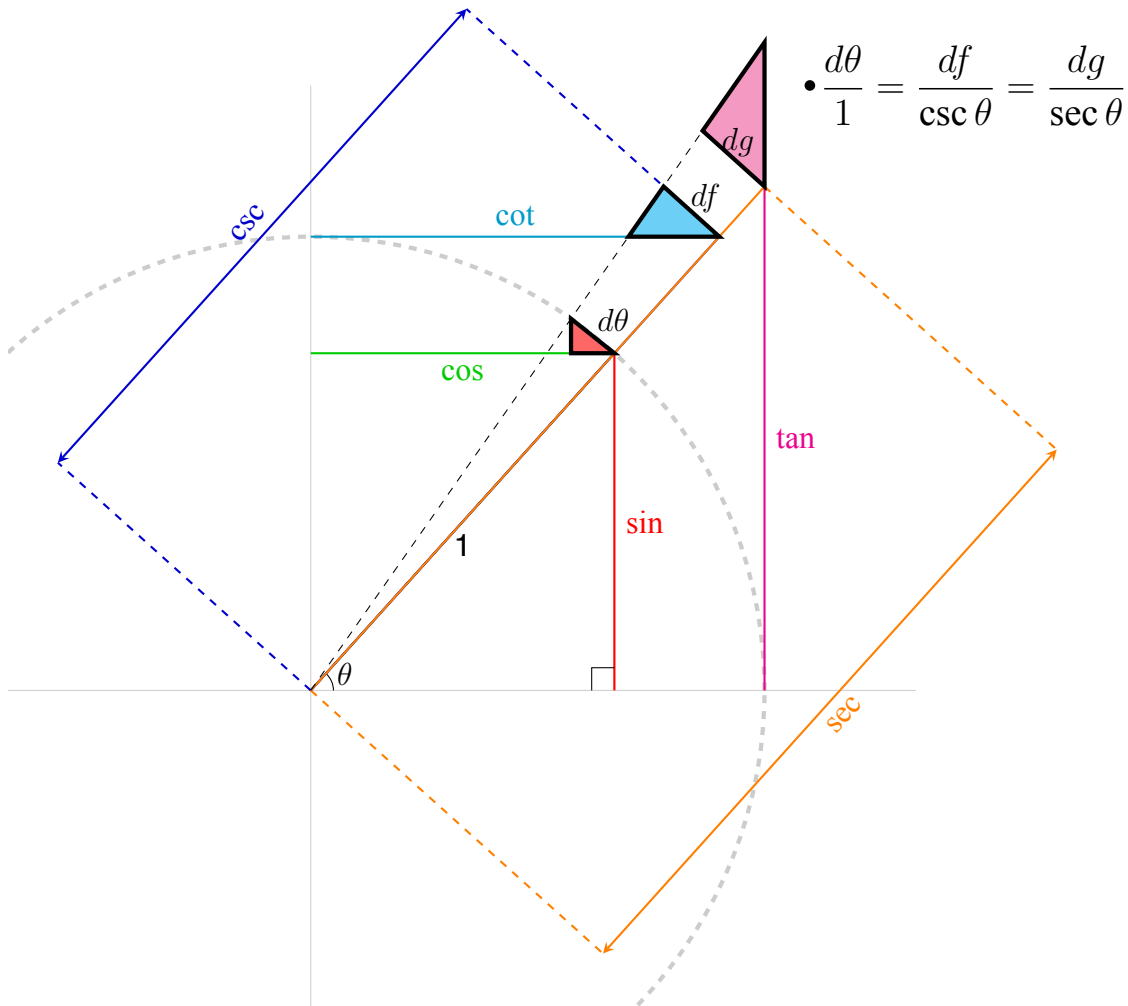
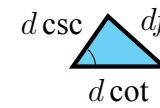


## Trigonometric and Their Differentiation



$$\bullet d \tan \theta = \frac{dg}{\cos \theta} = \sec^2 \theta d\theta$$

$$\bullet d \sec \theta = \tan \theta dg = \sec \theta \tan \theta d\theta$$



$$\bullet d \cot \theta = -\frac{df}{\sin \theta} = -\csc^2 \theta d\theta$$

$$\bullet d \csc \theta = -\frac{df}{\tan \theta} = -\csc \theta \cot \theta d\theta$$



$$\bullet d \sin \theta = \cos \theta d\theta$$

$$\bullet d \cos \theta = -\sin \theta d\theta$$